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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,553	01/17/2006	Vinko Kunc	P70646US0	5362

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EXAMINER	
LE, HIEN	
ART UNIT	**PAPER NUMBER**
3662	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,553	KUNC ET AL.	
	Examiner	Art Unit	
	Hien Le	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/17/2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 June 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/17/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention because the FIGURE of illustration for a circuit setting the gain of an interrogator and several transponders should be drawn. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

The drawings are also objected to because there is no FIGURE numbered in the drawing.

Appropriate correction is required.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in

upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if

the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim **1** is rejected under 35 U.S.C. 102(b) as being unpatentable by **Hurta et al. (U.S. patent # 5,809,142)**.

Considering **claim1**, Hurta et al. disclose the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system consisting of the interrogator and several transponders, according to which method, within a receiver amplifier of the interrogator, a gain lowering is activated each time when an amplified input signal exceeds an attack threshold voltage level (Vatt), and a gain rising is activated after the gain lowering has ended, characterized in that the amplifier responds with the gain rising activated after the lapse of a waiting period which started when the instantaneous value of the amplified signal for the last time after the end of the gain lowering exceeded, a waiting threshold voltage level (Vw). See FIG1. " An interrogator 12 communicates with a remote transponder 14 by transmitting an interrogation signal to the transponder 14 in response to which the interrogation

transmits back to the interrogation 12 a response signal 15b containing a transponder-unique identifying code (ID)" (column 4, line 60-65), also see FIG. 19, " a low pass filter 72 is provided between the detector 70 and the comparator 68. Low pass filter 72 outputs a DC level signal at node "B" related to the average received voltage level at node "A"...When the DC level signal at node "B" exceeds a certain pre-determined voltage threshold, the comparator 68 by its output at node "C" enables the wake-up 64 to monitor the received signal for the presence of the 300 kbps modulation and the transponder 14" (column 28, line 53-67), " if no modulation is detected and the RF signal drops below the threshold voltage, the wake up block 60 will automatically power down a short time later. If no wake up modulation is detected and the RF signal maintains above the threshold, the wake up circuit 64 will preferably continue to consume power" (column 29, line 51-56), and " the predetermined duration of the pulse counter is selected based upon the time between RF interrogation pulses form the interrogator 12" (column 29, line 30-32).

The low pass filter in the reference has the function to activate a gain lowering. Also, the high pass filter in the reference has the function to activate a gain rising within the predetermined voltage threshold and predetermined duration of the pulse counter.

Therefore, Hurta et al. successfully disclose the limitation above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims **2-3** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hurta et al. (U.S. patent # 5,809,142)**, as applied to claim **1** above, and further in view of **Granovsky (U.S. Patent # 5,276,430).**

Considering **claim 2**, Hurta et al. fail to disclose the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system, characterized in that the rate of the gain rising is of the same order of magnitude as the rate of the gain lowering.

However, Granovsky discloses the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system, characterized in that the rate of the gain rising is of the same order of magnitude as the rate of the gain lowering. FIG.11 and FIG.17. " The unit (102-109) together with the phase detector (78) and with the magnitude extractor 87 (which is used on a time-sharing basis) continue eight synchronous detectors dedicated to processing information contained in the eight

respective window...Each unit (102-109) supplies the integrals to the respective inputs of the magnitude extractor (87) following commands 110-117" (column 22, line 48-68), and " during the second and fourth transmission periods the magnitude extractor (87) presents at its output (89) magnitude $M_1 - M_4$, $M_{(-)}$, M_h, M_{N1} and M_{N2} either of signal or of noise in the same order in which the windows (W_1-W_{N2}) follow each other" (column 23, line 1-5).

The magnitude extractor in the reference presents its output magnitude either signal or noise in the same order. Therefore, it would have been obvious to teach the limitations of the rate of the gain rising being of the same order of magnitude as the rate of the gain lowering.

Doing so would motivate the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system, characterized in that the rate of the gain rising is of the same order of magnitude as the rate of the gain lowering.

Considering **claim 3**, Hurta et al. fail to disclose the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system, characterized in that the length of the waiting period equals a double length of the longest time interval between the adjacent pulses in a transponder data wave packet.

However, Granovsky discloses the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system, characterized in that the length of the waiting period equals a double length of the longest time interval between the adjacent pulses in a transponder data wave packet. See FIG.11. The

period of the windows train is equal to the value $1/(2f_o)$ of half a period of the interrogation field (46) frequency. A possible deviation of an actual field frequency from its nominal value f_o has been taken into consideration by giving the windows an extra length in order not to miss nay of the expected modified tag signals" (column 15, line 5-35).

An actual field frequency f_o and the period windows train $1/(2f_o)$ in the reference clearly show that the period T in windows train are double the time period of an actual field frequency. Therefore, it would have been obvious to one skilled in the art to teach the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system, characterized in that the length of the waiting period equals a double length of the longest time interval between the adjacent pulses in a transponder data wave packet.

Doing so would motivate the limitations of automatically setting the gain of an interrogator receiver within a non-contacting identification system, characterized in that the length of the waiting period equals a double length of the longest time interval between the adjacent pulses in a transponder data wave packet.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Le whose telephone number is 571-270-1326. The examiner can normally be reached on M-F: 7:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrell McKinnon can be reached on 571-272-4797. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner

Hien Le

February 7, 2007

TERRELL L. MCKINNON
SUPERVISORY PATENT EXAMINER